

REMARKS

The examiner indicated that Claims 1-41 are pending in the application but that Claims 24-41 have been withdrawn from consideration in an action dated 5/5/03 as directed to non-elected claims.

In Response to Applicant's Arguments, the examiner indicated that: "Applicant has misinterpreted a typographical error as an action on the merits for claim 24. The Claims pending remain claims 1-23 and 24-41 have been withdrawn. Therefore, applicant's arguments in this respect are moot."

Applicant contends that this so-called typographical error has deprived Applicant of the opportunity to challenge the restriction requirement, since the error was not corrected nor indeed noticed by the examiner in the nearly 3 1/2 years of prosecution of this application. Moreover, the examiner's action is improper since the examiner has not apprised the applicant of the basis of her restriction of claim 24. Therefore, Applicant contends that the examiner must issue a new restriction requirement and withdraw of the finality of this rejection.

Applicant's claims 24-41 therefore should not be canceled at this time, and instead other appropriate action (37 CFR 1.144), of waiting for the examiner to address applicant's challenge to the restriction requirement is the appropriate action.

The examiner rejected Claims 1-23 under 35 U.S.C. 101 contending that the claimed invention is directed to non-statutory subject matter.

The claimed method consists solely of the manipulation of an abstract idea and is not concrete or tangible. See *In re Warmerdam*, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also *Schrader*, 22 F.3d at 295, 30 USPQ2d at 1459. In addition, the claim is devoid of any limitation to a practical application in the technological arts. The invention in the body of the claim must recite technology. If the invention, in the body of the claim, is not tied to technological art, environment, or machine, the claim is not statutory (see *Ex parte Bowman*, 61 USPQ2d 1665, 1671 (BD. Pat. App. & Inter. 2001). Also note MPEP 2106 IV 2(b). Examiner notes that this is not a precedential decision but it is being cited for its analysis of whether the claim is in the technological arts. As to claims 18-19, the claims appear to be directed towards a client station but do not include any more than descriptions of a quote and no tie to the technological art. As to claims 20-23, the claims appear to be directed towards a graphical user interface but again appear to merely describe quotes.

Claim 1

Claim 1 calls for a method, executed in a computer server system of an electronic market, for managing quotes for a security. Claim 1 includes the step of receiving by the server computer system from client systems used by market participants, additional aggregate quotes, the additional aggregate quotes having a size value with the additional aggregate quotes being quotes that are displayable on displays of client systems, as trading interest in a security, but not being attributable to any market participant.

The examiner contends with respect to the claims, that: "The claimed method consists solely of the manipulation of an abstract idea and is not concrete or tangible." [Examiner's Action, page 3].

Applicant contends that the subject matter of claim 1 is patentable subject matter within the meaning of 35 U.S.C. §101.

The examiner applies relies on *In re Warmerdam*, 33 F.3d, 1354 31 USPQ2d 1754 (Fed. Cir.1994).¹ *In re Warmerdam*, 33 F.3d, 1354 31 USPQ2d 1754 (Fed. Cir.1994) does not support the examiner's contention. In *Warmerdam* the Federal Circuit found claim 5 directed to "a machine, clearly patentable subject matter." 33 F.3d at 1360-61, 31 USPQ2d at 1759. In contrast the Federal Circuit found claims 1-4 and 6 reciting "steps [that] describe nothing more than the manipulation of basic mathematical constructs, the paradigmatic "abstract idea."

Unlike the situation in claims 1-4 and 6 in *Warmerdam* instant claim 1 calls a method executed in a computer server system of an electronic market The method includes the feature of receiving by the server computer system from client systems ..., additional aggregate quotes Thus, claim 1 calling receiving by the server computer system from client systems recites statutory subject matter under 35 U.S.C. 101, since claim 1 does not consist solely of the

¹ "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 158384, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). MANUAL OF PATENT EXAMINING PROCEDURE §2106 page 2100-12 rev. May 20.04

manipulation of an abstract idea, rather claim 1 features a concrete and tangible action of receiving by the server computer system from client systems.

The examiner also advances a so-called "technological arts test," relying on *Ex parte Bowman*, 61 U.S.P.Q.2d 1669 (Board of Patent Appeals and Interferences).

Apparently the examiner is unaware of the Board's precedent in which the Board has refused to adopt a technological arts test, as most recently expressed in *Ex Parte Lundgren*, __ USPQ2d __ (BPAI Oct. __, 2005).² Moreover, the precedents that are binding on the examiner clearly reject the notion of a technological arts requirement for statutory subject matter. Applicant contends that the test for statutory subject matter is whether a sequence of operational steps produce a useful, concrete and tangible result. Claim 1 recites such a result, e.g., managing quotes for a security and quotes ... displayable on displays of client systems as trading interest ...

In response to applicant's Reply, the examiner offers a stock answer of a compilation of the Patent Office's contention regarding technological art requirements. This compilation of office positions have not been applied to any of Applicant's claims and thus do not assist Applicant in responding. Moreover, the reasoning of these positions is in error in view of the Board's decision in *Ex Parte Lundgren*.

In addition, the reasoning is in error because of other Federal Circuit and Board decisions. The Federal Circuit, in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F. 3d 1368, 1374, 47 USPQ2d 1596, 1601-02 (Fed. Cir. 1998), stated:

After *Diehr* and *Chakrabarty*, the Freeman-Walter-Abele test has little, if any, applicability to determining the presence of statutory subject matter. As we pointed out in *Alappat*, 33 F.3d at 1543, 31 USPQ2d at 1557, application of the test could be misleading, because a process, machine, manufacture, or composition of matter employing a law of nature, natural phenomenon, or abstract idea is patentable subject matter even though a law of nature, natural phenomenon, or abstract idea would not, by itself, be entitled to such protection.⁽⁶⁾ The test determines the presence of, for example, an algorithm. Under *Benson*, this may have been a

² Appeal No. 2003-2088 HEARD: April 20, 2004. (Fleming, Harkcom, Hairston, Jerry Smith (dissent), Barrett (concur-in-part, dissent-in-part, with Smith) (per curium))

sufficient indicium of nonstatutory subject matter. However, after Diehr and Alappat, the mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it nonstatutory subject matter, unless, of course, its operation does not produce a "useful, concrete and tangible result." Alappat, 33 F.3d at 1544, 31 USPQ2d at 1557. ⁽⁷⁾ (Footnotes omitted.)

It is also undeniable that The Federal Circuit in *State Street Bank & Trust Co.* repudiated the "Freeman-Walter-Abele test" in view of the Supreme Courts later decisions in *Diehr*³ and *Chakrabarty*⁴.

The examiner contends that the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts." The phrase "technological arts" as used by the court in *re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970) was viewed as the only requirement for establishing statutory subject matter. Judge Baldwin in a concurring opinion clearly pointed out the effect that "technological arts" would have in patent jurisprudence, not as a limiting phrase, but as a phrase that would be read as an expanse of patentable subject matter.⁵

In *Musgrave*, the court stated:

We cannot agree with the board that these claims (all the steps of which can be carried out by the disclosed apparatus) are directed to non-statutory processes merely because some or all the steps therein can also be carried out in or with the aid of the human mind or because it may be necessary for one performing the processes to think. All that is necessary, in our view, to make a sequence of operational steps a statutory 'process' within 35 U.S.C. § 101 is that it be in the technological arts so as to be in consonance with the Constitutional purpose to promote the progress of 'useful arts.' Const. Art. 1, sec. 8.

³ *Diamond v. Diehr*, 450 U.S. 175 (1981).

⁴ *Diamond v. Chakrabarty*, 447 U.S. 303 (1980).

⁵ What The Majority Opinion Does One need only read the page 893 of the opinion to find the principal holding: 'All that is necessary * * * to make a sequence of operational steps a statutory 'process' within 35 USC 101 is that it be in the technological arts.' No limitations are placed upon this holding. In effect it is a pronouncement of new law.

In the Federal Circuit's view, all that was required to make a sequence of steps statutory is that it be within the "technological arts." A claim that calls for: "A method, executed in a computer server system of an electronic market for managing quotes for a security" is within the "technological arts," since the claim is not directed solely to an abstract idea, mental step or law of nature.

However, the Federal Circuit, in *In re Toma*, 575 F.2d 872, 197 U.S.P.Q. 852 (CCPA, 1978) clarified the use of the "technological arts" inquiry that the examiner relies on here. In *Toma*, at 575 F.2d at 877, the court stated that: "The language which the examiner has quoted was written in answer to "mental steps" rejections and was not intended to create a generalized definition of statutory subject matter. Moreover, it was not intended to form a basis for a new §101 rejection as the examiner apparently suggests. To the extent that this "technological arts" rejection is before us, independent of the rejection based on Benson, it is also reversed.

The holding in *Toma* that "the invention was nothing more than an abstract idea which is not tied to any technological art, environment, or machine, and is not a useful art as contemplated by the Constitution of the United States.", id. at 877, the court did not adopt a new test but merely expressed a short cut for the exceptions to patentable subject matter, namely patent claims drawn solely to abstract ideas, laws of nature or mental steps, to which Applicant's claims are not directed.

The examiner relies on *Ex parte Bowman*, 61 U.S.P.Q.2d 1669 (Board of Patent Appeals and Interferences) to distinguish *State Street*, and advance the "technological arts" test, as a separate test established in *Toma*, and as a dichotomy⁶, recently acknowledged by the Board in

⁶ Appellant does not see where the Board in *Bowman* expressed any dichotomy. Rather, the board expressed a view that technological arts was merely another way to address or view useful arts. The Board did not say that technological arts implied another test. The Board in *Bowman* stated:

We interpret the examiner's rejection as finding that the claimed invention before us is nothing more than an abstract idea because it is not tied to any technological art or environment. Appellant's argument is that the physical (even manual) creation of a chart and the plotting of a point on this chart places the invention within the technological arts.

The phrase "technological arts" has been created to offer another view of the term "useful arts." The Constitution of the United States authorizes and empowers the government to issue patents only for inventions which promote the progress [of science and] the useful arts."

affirming a §101 rejection in *Bowman*. However, unlike the situation presented to the Board in *Bowman*,⁷ Appellant's specification is clearly within the "technological arts" and all of Appellant's claims recite features within the "technological arts."

Accordingly, in view of the Board's decision in *Ex Parte Lundgren* and the other binding precedent, the examiner is in error and should remove the rejection.

The examiner also rejected Claims 1-23 under 35 U.S.C. 112, second paragraph, as being indefinite. The examiner stated:

Specifically as to claim 1, the claim is incomplete. The preamble is directed to a method of trading securities yet there are no trading steps. Additionally, the claim is indefinite.

Claim 1 recites the limitation "additional aggregates" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the reserve quote" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "additional.. reserve quotes" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the order" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Specifically as to claim 13, it is unclear "for a server process that.. aggregates quotes and causes aggregate quotes" the metes and bounds of the claim are unclear.

Specifically as to claims 14 and 15, the claim is indefinite and vague as to what is really being claimed.

Claim 14 recites the limitation "the electronic system" in line 1. There is insufficient antecedent basis for this limitation in the claim.

The term "can be" in claim 17 is a relative term which renders the claim indefinite. The term "can be" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Specifically as to claims 18 and 20, the metes and bounds of the claim cannot be defined; therefore, the claim is indefinite. Specifically, is the applicant claiming a "client station" or a method of entering quotes? Lines 2-3 appear to refer to what function the station is capable of performing and then followed by lines 4-7 which appear to be describing the quotes. Is applicant claiming the combination/subcombination? Applicant should correct and clarify.

Claim 21 recites the limitation "the aggregation" in line 3. There is insufficient antecedent basis for this limitation in the claim.

⁷ The examiner finds that neither the specification nor the claims discuss the use of any technology with respect to the claimed invention [answer, pages 5-6]. [1] We agree with the examiner. Appellant has carefully avoided tying the disclosed and claimed invention to any technological art or environment. As noted by the examiner, the disclosed and claimed invention is directed to nothing more than a human making mental computations and manually plotting the results on a paper chart [answer, page 5].

Applicant requests that the examiner re-read all of the claims since none of the rejections appear to be based on the current claim set. For example, claim 1, was amended in the prior response to recite a method of managing quotes, not trading securities as the examiner argues.

Claim 1 recites the limitation "additional aggregates" in line 2. There is sufficient antecedent basis for this limitation in the claim, since the feature is presented, in the plural and without the definite article "the."

Claim 10 recites the limitation "a reserve quote" not the reserved quote in line 2.

Claim 12 recites the limitation "additional.. reserve quotes" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the order" in line 4 finds antecedent basis in base claim 11.

For claim 13 a server process that aggregates quotes and causes aggregate quotes to be displayed clearly defines the metes and bounds of the claim are definite and supported by Applicant's specification.

Specifically as to claims 14 and 15, the claim is indefinite and vague as to what is really being claimed.

Claim 14 recites "the electronic market" not system in line 1.

The term "can be" is not findable in claim 17.

As to claims 18 and 20, it is clearly drawn to a "client station" for entering quotes.

Claim 21 recites the limitation "the aggregation window," which is supported by base claim 20.

Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Gutterman et al. (WO 91/14231) as applied in the prior office action. See prior office action for specific citation and reasoning.

Applicant's claims 1-23 are allowable for the reasons of record.

Briefly, Applicant's claim 1 is directed to a method ...of managing quotes for a security. Appellant's claimed method includes receiving ... additional aggregate quotes, ... with the additional aggregate quotes being quotes that are displayable on displays of client systems, as trading interest in a security, but not being attributable to any market participant. Gutterman does not anticipate claim 1.

The Examiner contends that Gutterman anticipated this claim and disclosed "a method of trading securities." The examiner contends that the abstract of the Gutterman reference has all of the features that anticipate claim 1. The examiner does not address each and every element of claim 1. For example, the examiner does not address the "additional aggregate quotes having a size" or that these quotes are "displayable as trading interest in a security, but are not attributable to any market participant." Applicant is unable to find any corresponding teachings in Gutterman for the features of claim 1.

Likewise, Gutterman does not teach "managing quotes for a security," as claim 1 recites because Gutterman does not discuss quotes. Gutterman discusses orders. Gutterman displays the total number of orders. Gutterman does not suggest to modify the system to handle quotes along with orders.

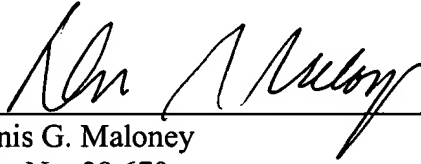
Applicant's remaining claims include at least the feature of additional aggregate quotes that are displayable but not attributable. Thus, the remaining claims are allowable over Gutterman at least for this reason and for the reasons of record.

This Reply is accompanied by a Notice of Appeal.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: May 8, 2006



Denis G. Maloney
Reg. No. 29,670

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110
Telephone: (617) 542-5070
Facsimile: (617) 542-8906